

The Role Of the Financial Sector in the Poverty Reduction Strategy

(4 Memos)

August 2001



Sigma One Corporation

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THE ROLE OF THE FINANCIAL SECTOR IN THE POVERTY REDUCTION STRATEGY*

Overview

An efficient, well-functioning financial sector contributes to economic growth and development, and thereby the reduction of poverty, by mobilizing funds from savers and lending them to borrowers, who place these funds in productive investments. When the financial system successfully acts as a go-between, or intermediary, between savers and borrowers, it makes all parties better off. Savers have opportunities to store and grow their financial wealth. Borrowers with productive investment opportunities can begin their projects immediately, rather than having either to self-finance or to forgo the investment. The intermediaries are compensated by the difference between the rate they charge their borrowers and the rate they pay their depositors.

In Ghana, the financial sector's ability to serve as an effective, low cost intermediary has been seriously compromised by problems that threaten its soundness and stability. It is saddled with a large and growing burden of poor quality and nonperforming assets, primarily loans to state-owned enterprises. It has a very serious overexposure to foreign exchange liabilities, which outstrip foreign assets by almost \$300 million. More than one-third of its total assets represent the indebtedness of government and state-owned enterprises, because the banking system has been used to finance a long string of government deficits. It cannot take on significant amounts of additional government debt. In short, the financial system is currently under a great deal of stress and it will require significant resources to place the system, including the Bank of Ghana, on a sound financial footing. These problems need to be resolved before the financial system can efficiently mobilise domestic savings, direct them to productive investments—investments that will lead to economic growth and poverty reduction.

Issues Affecting Financial Sector Performance

Inadequate Domestic Savings Mobilisation

The domestic savings rate has been too low in comparison to high growth economies that were at Ghana's stage of development when Ghana achieved independence. In the early stages after independence halting growth was obtained from a depletion of prior savings, and in recent years the meager growth has relied almost exclusively on donor credits and aid. Today, approximately half of the savings that are generated within Ghana are consumed by the public sector, and much of the rest is dissipated by uncertainty and by a general lack of competitiveness throughout the economy.

Uncertainty in Ghana originates primarily from economic policies related to meeting the financing requirements of persistent public sector deficits. Uncertainty not only dissipates the productivity of the savings and investment levels that are achieved (including donor aid), but also causes Ghanaians to discount the future and to save

* Prepared by Dr. Curtis Youngblood, Senior Monetary Economist, Sigma One Corporation.

less than they would in a more certain and more productive environment. *For Ghana to grow, the public sector must generate substantial savings and the financial sector must mobilise increasing levels of domestic savings and place them in productive investments.*

Crowding Out of Private Sector Investment

For many years the financial sector has mainly served as a financing conduit for the public sector and therefore has gradually lost its ability to act as a go-between for *private sector* borrowers and savers. In the process it has taken on so much government debt that its ability to perform even the limited function of financing government deficits is being threatened. More than one-third of the total assets of the financial system represent the indebtedness of government and state-owned enterprises. Most of this debt (91- and 182-day T-bills) is offered at very high real interest rates, ranging between 11% to 18% on average from 1997-2000. Since bank lending rates are tied to the T-bill rate, the borrowers' investment projects have to generate *higher* real returns in order to service the loan and remain profitable. This is a difficult obstacle to overcome, especially for firms serving only the domestic market, which is small, poor, and growing slowly. Thus, private sector investments are crowded out as the government lays claim to a significant share of the economy's financial resources and has to pay high real interest rates in order to get savers to hold these debt instruments willingly.

Nevertheless, new loans are being made to larger firms and to export-related firms in the private sector, despite the current difficult business environment. Also, some of the larger banks in the system have capped their holdings of T-bills and, for strategic business reasons, have continued their lending relationships with their customers in order to maintain and extend their market share.

Fragility of the Financial Sector

The Bank of Ghana's use of the nominal exchange rate as an anchor to slow the rate of inflation in the presence of large and persistent fiscal deficits from 1997-1999 sparked a speculative attack on the cedi that started in the last quarter of 1999 and lasted through 2000, resulting in a fall in the value of the currency of more than 150%. The sharp decline in the terms of trade caused by the fall in cocoa and gold prices and the rise in oil prices triggered the attack, but it was the BoG's use of a monetary policy that was not consistent with fiscal realities that created the conditions under which speculation against the cedi would be highly profitable. The overexposure of the banking system to foreign liabilities also contributed to the severity of the attack.

This additional source of macroeconomic instability significantly increased the riskiness of the business environment, and many firms in the service and import-competing sectors experienced serious cash flow problems. The costs of imported inputs rose significantly, thus increasing production costs, and the domestic prices of import-competing goods rose. Falling sales and rising costs squeezed profit margins and seriously impaired the ability of these companies to service their loans. Banks quit extending new loans to these firms, most of them small and medium-size companies. But the existing loans that were not being serviced began burdening the banks with an increasing amount of low quality and non-performing assets.

However, the bulk of the problem of non-performing assets was created by loans to state-owned enterprises, of which the most important one is the massive syndicated loan to Tema Oil Refinery of C2.5 trillion (equivalent to 6.8% of GDP). The problem of non-performing loans is much worse for state-owned or state-controlled banks than it is for the private banks. One-third of the loan portfolio of the 3 state banks is either of doubtful quality or nonperforming.

At the end of 2000, the banking system's foreign liabilities (including foreign currency deposits) exceeded foreign assets by \$284 million. On average, net foreign assets for 2000 were a negative \$224 million, continuing a deteriorating trend since 1996. *This overexposure now exceeds the banking system's total capital and reserves.* Inexplicably, the Bank of Ghana has not enforced its prudential regulations that restrict the extent to which banks can maintain a net exposure to foreign liabilities.

The problems of nonperforming loans, foreign exchange overexposure, and over-investment in T-bills do not affect all banks equally. Nevertheless, these problems must be addressed to maintain the stability of the financial system. Otherwise, the financial difficulties or collapse of a distressed bank can quickly spread throughout the system, taking down the sound banks with the bad ones. Financial panics, or even the threat of panics, undermine confidence in the financial system. When savers question the soundness or stability of the financial system they keep their wealth outside the system. This directly diminishes the pool of funds available to financial intermediaries for lending.

Lack of Long-Term Capital

Long-term capital markets are at a rudimentary state of development in Ghana and are not thriving. The daily value of trades on the Ghana Stock Exchange has lately been less than \$10,000 and the market capitalization of the 21 firms listed (excluding Ashanti Goldfields) is about \$500 million, small even by emerging market standards. Trading volumes have deteriorated over the past few years. The Housing Finance Corporation is the issuer of the only corporate bonds that are traded, and most of these are held by SSNIT. SSNIT has often been mentioned as a source of funds for long-term investments. But SSNIT has many problems. It has many non-performing loans and low return equity investments in insolvent or distressed state-owned enterprises. It is used to fund social infrastructure which should be funded through the government's budget. The government and state-owned enterprises are delinquent in their payroll contributions, and frequently cover such arrears by forcing SSNIT to take equity positions in state-owned enterprises. As a result SSNIT suffers from liquidity problems and has a negative rate of return on its investments. Because of its current financial disarray, it is unlikely that significant funds from this source could (or should) be tapped as a source of long-term capital.

The fundamental reason long-term capital markets have not developed further is that the management of Ghana's economy generates a lot of uncertainty that fosters a short-term outlook and rewards short-term investments (see **Table**). This instability is generated in large part by the government's large budget deficits. The financing of those deficits has resulted in excessive and volatile rates of money growth, high nominal and real rates of interest, and most recently a speculative attack against the currency, resulting in a depreciation of the currency in excess of 100% in one year. Long-term financial savings simply will not be forthcoming under these conditions,

and private long-term investment projects would be subject to so much risk over their lifetime that it would be difficult to price them in any meaningful way. *Long-term capital markets could develop, but only after a significant period of macroeconomic stability.*

Budget Deficits and Macroeconomic Instability

	Broad Budget Deficit (% of GDP)	Base Money Growth (% per year)	Inflation (% per year)	Nominal Interest Rate (% per year)	Real Interest Rate (% per year)	Exchange Rate Depreciation (% per year)
1990	2.1	16.5	37.3	23.1	-10.4	20.9
1991	1.4	-4.0	18.0	31.5	11.4	12.7
1992	8.7	32.2	10.1	20.4	9.4	18.8
1993	7.4	44.4	25.0	33.5	6.9	48.5
1994	3.8	35.4	24.9	29.8	3.9	47.4
1995	4.0	53.1	59.5	38.8	-12.9	25.5
1996	8.4	43.7	46.6	46.5	-0.1	36.4
1997	10.1	41.9	26.0	47.9	17.4	25.2
1998	8.1	24.6	16.4	37.6	18.3	12.9
1999	5.1	19.0	12.4	28.2	14.1	14.4
2000	7.4	14.5	25.2	39.3	11.3	101.0

Sources: Government of Ghana Budget Statements, various years; Bank of Ghana Quarterly Economic Bulletins, various issues; International Financial Statistics, IMF.

Recommendations for Strengthening the Financial Sector

The government can take steps that will provide incentives for financial system institutions to mobilize private sector savings and lend them to private sector borrowers. This will give the financial sector a more supportive role in achieving the aims of the poverty reduction strategy. If the government achieves the macroeconomic targets specified in the GPRS, the overall outcome will be a much more stable macroeconomic environment. As the revenue and expenditure targets are met, the deficit will shrink. It is critical that the deficit reduction strategy be credible and that it lasts longer than one election cycle—the table above shows the destabilizing effects of election-year spending during the last 3 elections on money growth, inflation, and depreciation.

Second, the macroeconomic targets call for a significant reduction in the stock of domestic debt. Taken together, these steps would diminish the need for the government to turn to the financial system in order to fund its operations. It would allow T-bill rates, and therefore lending rates, to come down. Lower lending rates mean that the investments into which borrowed funds are placed are more likely to yield rates of return sufficient for the borrower to repay the loan without decapitalising the business.

The government should remove the 10% tax on bank profits, innocuously named the “National Reconstruction Levy”. Taxing intermediation services will result in less intermediation at a higher price (larger spread) than in the absence of the tax. Banks and financial institutions should of course be subject to the same rate of corporate

income tax as firms in other industries, but should not be singled out as a source of additional revenue on the pretense that they are making “excessive” profits.

The government should enforce prudent financial supervision standards and regulations, and require banks and non-bank financial institutions to make appropriate provisions for non-performing loans and advances.

The government should require the owners of banks and non-bank financial institutions to re-capitalise any institution that fails to meet capital adequacy ratios after making appropriate provision for delinquent and non-performing accounts. This may require some owners to sell their distressed institutions or to take on new equity partners.

The balance sheets of some of the banks have to be cleaned up again, just as they were in 1990. This is particularly true of the 3 state-owned banks—one-third of their loan portfolios is either very low quality or nonperforming. These banks need to be recapitalised and, ideally, privatised. The large open position in foreign exchange must be closed. Simply dealing with the Tema Oil Refinery debt held by the banks will claim significant government resources at a time when the government is in a financially weak position.

The government should privatize or otherwise sell its equity in state-owned or state-controlled banks. When these banks are bailed out again, it will be the second time in roughly a decade that public funds have had to be used for this purpose. These resources are very costly—every cedi spent in a bail out could have been spent on a poverty reduction programme or project. Returning the financial sector to private sector ownership would also boost credibility in the government’s deficit reduction strategy and in its commitment to private sector led growth.

CURRENT STATE OF THE FINANCIAL SECTOR

The Financial Sector Is at the Limits of Its Ability to Service the Domestic Debt*

An efficient, well-functioning financial sector contributes to economic growth and development, and thereby the reduction of poverty, by mobilizing funds from savers and lending them to borrowers, who place these funds in productive investments. When the financial system successfully acts as a go-between, or intermediary, between savers and borrowers, it makes all parties better off. Savers have opportunities to store and grow their financial wealth. Borrowers with productive investment opportunities can avail themselves of these funds immediately, rather than having to come up with the necessary resources by themselves or forgo the investment. The intermediaries are compensated by the difference between the rate they charge their borrowers and the rate they pay their depositors.

In Ghana, the financial sector's ability to serve as an effective, low cost intermediary has been seriously compromised by a number of circumstances. One of these is that for many years the sector has mainly served as a financing conduit for the public sector and gradually lost its ability to act as a go-between for *private sector* borrowers and savers. In the process it has taken on so much government debt that its ability to perform even the limited function of financing government deficits is being threatened.

The government sells debt instruments (primarily 91-day Treasury bills) as a way of financing the deficit. Because public sector finances have persistently been in deficit for many years, the outstanding stock of T-bills has continued to grow, until in the year 2000 it accounted for over 20% of GDP (see **Table**). Servicing this debt has reached the point of absorbing an unacceptably large share of government revenues—more than 25%. This is a consequence of a policy of keeping real interest rates at levels far in excess of the real growth rate of the economy. Between 1997 and 2000, real interest rates exceeded GDP growth by 8 to 13 percentage points each year (see **Table**). This differential between real interest rates and real economic growth cannot be sustained, because the real costs of servicing the domestic debt (making the interest payments and rolling over the debt as it matures) will continue to grow. So ultimately for long-run macroeconomic stability, real interest rates need to fall at least to the level of real economic growth.

	1997	1998	1999	2000
Stock of domestic debt (% of GDP)	11.3	13.0	15.9	20.2
Domestic interest payments (% of revenues)	23.5	24.7	23.2	25.3
Real interest rate (% per year)	17.4	18.3	14.1	11.3
Real GDP growth rate (% per year)	4.2	4.7	4.4	3.7

But because the government is continuing to spend more than it is collecting in taxes and donor aid, it is continuing to borrow and this effectively prevents interest rates from falling. *In point of fact, given the government's current fiscal stance, interest rates would have to rise in order to equilibrate the demand for T-bills by the banks and the public with the supply offered at the weekly auctions.* The T-bill auction is typically undersubscribed. For example, on average 87% of the securities offered for

* Prepared by Dr. Curtis Youngblood, Senior Monetary Economist, Sigma One Corporation.

sale in 2000 were purchased¹. This persistent excess supply condition indicates that the interest rate is too low. The government could get closer to clearing the market if it allowed interest rates to rise further. For example, with interest rates on 91-day T-bills at 47% in May-July 2001, the average subscription rate has risen to 94%. But every time interest rates rise, the government's debt servicing costs increase.

Even if the government could afford the additional debt servicing costs, the banking system's ability (or willingness) to hold the debt may be reaching a peak. Treasury bills constitute most of the banking system's secondary reserves. For many years, banks have held far more T-bills (as a percent of their deposit liabilities) than they were required to hold to satisfy their reserve requirements (see **Table**). For example, in 1998 and 1999 required secondary reserves were 35%, but actual holdings amounted to more than half of banks' deposit liabilities. But lately, depreciation has inflated the cedi value of foreign currency deposits, an important component of M2+ (see **Table**) and banks have had to come up with more cedis and T-bills to meet their reserve requirements. This has squeezed excess holdings of T-bills (see **Table**). The fact that the banks are not maintaining excess reserves at their historical levels indicates that the financial system is close to its saturation point with respect to its holdings of domestic debt instruments.

	1997	1998	1999	2000	
				1 st half	2 nd half
Excess secondary reserves (% of deposits)	9.2	18.1	18.6	13.0	4.8
Actual secondary holdings (% of deposits)	47.2	53.1	53.7	48.0	39.8
Foreign currency deposits (% of M2+)	23.3	20.4	19.0	23.9	31.8

Once this limit is reached—that is, individuals and institutions are unwilling to hold additional amounts of debt—then if the government continues to run a deficit, the Bank of Ghana will have to print money to finance it². The inflationary consequences of this would be large and immediate.

The burden on the financial sector has been further aggravated by the financing requirement of several state-owned enterprises, primarily Tema Oil Refinery. The financial sector cannot simultaneously support the fiscal burden and the debts of the parastatals, which arise from their subsidized pricing of their goods and services.

The situation demands a genuine positive domestic surplus in the broad budget out-turn for FY 2001 and subsequent years. These fiscal savings must come from the investment budget. There is limited scope for expenditure control in the recurrent budget: inflation and devaluation have eroded the value of public sector wages and social expenditure commitments were not met in 2000, thereby making households poorer. Some revenue enhancement is possible through improved implementation of the VAT, improved management of IRS and CEPS, and through reform of the tariff system. Finally, effective pursuit of divestiture could help relieve the debt burden.

¹ In the 1994-1996 period, the average subscription rate was only 66%.

² The option of borrowing from abroad to finance the deficit, which Ghana has resorted to frequently in the past, will no longer be as available, now that Ghana has applied for debt relief under the HIPC initiative.

CURRENT STATE OF THE FINANCIAL SECTOR:

Overexposed to Foreign Currency Liabilities and Non-Performing Loans*

An efficient, well-functioning financial sector contributes to economic growth and development, and thereby the reduction of poverty, by mobilizing funds from savers and lending them to borrowers, who place these funds in productive investments. When the financial system successfully acts as a go-between, or intermediary, between savers and borrowers, it makes all parties better off. Savers have opportunities to store and grow their financial wealth. Borrowers with productive investment opportunities can avail themselves of these funds immediately, rather than having to come up with the necessary resources by themselves or forgo the investment. The intermediaries are compensated by the difference between the rate they charge their borrowers and the rate they pay their depositors.

In Ghana, the financial sector's ability to serve as an effective, low cost intermediary has been seriously compromised by a number of circumstances. One of these is that the sector is plagued by a serious overexposure to foreign liabilities and is saddled with a growing number of nonperforming loans. This threatens the soundness and stability of the financial system, thereby diminishing the system's ability to mobilise domestic savings and lend them to private sector borrowers. Furthermore, public sector resources that will be required to restore financial soundness have a very high opportunity cost—they could have been used in social programs that would help alleviate poverty.

At the end of 2000, the banking system's foreign liabilities (including foreign currency deposits) exceeded foreign assets by \$284 million. On average, net foreign assets for 2000 were a negative \$224 million, continuing a deteriorating trend since 1996 (see **Table**). *This overexposure now exceeds the banking system's total capital and reserves—if the system were forced to close this open position from its own resources, it would bankrupt itself (see **Table**).*

	1996	1997	1998	1999	2000
Net foreign assets (\$ mn)	60	21	-51	-184	-224
NFA as % of capital and reserves	32	10	-21	-70	-107
Foreign currency deposits (\$ mn)	268	303	308	292	269
For. curr. deposits (% of M2+)	22.3	23.3	20.4	19.0	27.9

The Bank of Ghana's use of the nominal exchange rate as an anchor for inflation in the presence of large and persistent fiscal deficits from 1997-1999 sparked a speculative attack on the cedi that started in the last quarter of 1999 and lasted through 2000, resulting in a fall in the value of the currency of more than 150%. The overexposure of the banking system contributed to the severity of the attack. Pursuit of the exchange rate anchor policy has depleted the foreign exchange reserves of the Bank of Ghana, leaving it unable to support the banking system by providing foreign exchange to cover the system's open positions, in the event that those positions need to be closed. The overexposure at a minimum implies continuing pressure on the domestic currency. This overexposure needs to be reduced and

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steps taken to insure that it does not happen again. In particular, the systematic violation of Bank of Ghana's foreign exchange exposure requirements (one of its prudential regulations) and the lack of enforcement of the requirements should be corrected immediately.

The growing presence of low quality and nonperforming assets in the loan portfolios of the banks includes a massive syndicated loan to Tema Oil Refinery (equivalent to 4% of GDP). Other low quality assets in the banks' portfolios represent loans and advances to private sector firms that may be insolvent or financially distressed. Some of these have expressed expectations of being bailed out of their debts by the government or, at a minimum, to have the debts rolled over.

The problem of non-performing loans is much worse for state-owned or state-controlled banks. One-third of the loan portfolio of the 3 state banks is either of doubtful quality or nonperforming. This is a serious problem that needs to be addressed immediately. These banks need to be privatised—while under state control, it is too tempting for the government to treat them as a source of liquidity for inefficient state-owned enterprises. Even if they are not privatised, several of the state banks will require re-capitalisation or liquidation if they cannot improve the quality of their assets.

This situation is a major problem for economic management because the banks' overexposures may become a burden on the Bank of Ghana or on the government (or both) at a time when both are financially fragile. The situation is similar to the one that developed throughout the 1980's and that culminated in the establishment of the Non-Performing Asset Recovery Trust (NPART) and the recapitalization of the Bank of Ghana in 1990. NPART took over the non-performing assets of the banking system and replaced these non-performing assets with interest-bearing bonds to clean up the banks' balance sheets. The Bank of Ghana had to be recapitalized because it had let its foreign liabilities outstrip its foreign assets—just as the banks have done today. With every devaluation of the cedi the BoG suffered a loss; over time these losses mounted so that had they been recognized directly by reducing capital and reserves, the bank would have been bankrupted. Accordingly, the BoG was recapitalized by converting its revaluation account, where these exchange rate losses were accounted for, into a Treasury bond issued by the government.

BANK OF GHANA OPEN MARKET OPERATIONS*

Every Friday the BoG conducts an auction of government securities on behalf of the government and itself. The auction is a wholesale auction, i.e., BoG sells only to primary dealers (all deposit money banks, the discount houses, and some brokerage firms). The dealers submit competitive tenders at the weekly auctions. Banks typically account for 90-95% of the value of tenders.

An Auction Committee comprised of representatives from the BoG, MoF, and the Accountant-General meets every Friday. Its purpose is two-fold. First, it determines the lowest acceptable price for each security that will be accepted from the bids submitted, and hence, the highest interest rate that will be allowed that week. Second, it determines the total value of securities that will be offered at the next auction, based on the public sector borrowing requirement (PSBR) and the BoG's desired level of open market operations (OMO's).

Open market operations are decided by an OMO Committee that meets every Thursday. The size and direction of the weekly OMO (whether reserves need to be added to or drained from the banking system) are governed by the difference between actual reserves in the banking system and the weekly reserve money target. The deposit money banks submit formal reports on their reserve positions every Wednesday¹, so the BoG knows whether it has met that week's target. This information is used to determine the value of securities that will be added to the PSBR to arrive at the total value of securities that will be offered at auction.

The government has first claim on the auction proceeds, which it uses to meet its PSBR. Residual proceeds are used to drain reserves from the banking system in order to meet the BoG's reserve money target. It is these residual proceeds that constitute the BoG's open market operations in government securities.

If the BOG needs to expand reserve money, it will purchase some of the securities required to meet the PSBR. If the BoG wants to drain reserves from the banking system, it will add an appropriate volume of securities to the PSBR to determine the total value of securities that will be offered at that week's auction. For example, if the PSBR is C80 billion and the BoG wants to decrease reserves by C20 billion, the total offered at the auction will be C100 billion. If the auction is fully subscribed (C100 billion worth of securities is sold), then C20 billion in reserves is drained from the system. The total value of the securities sold (C 100 billion) become a liability on the GoG's balance sheet. BoG assets are not affected by the OMO since the BoG does not own the securities involved; instead, bank reserves (a BoG liability) decline by C20 billion, offset by an increase in the value of a blocked account, another liability item into which the proceeds from the open market operation are deposited.²

* Abstracted from C. E. Youngblood, "Instruments of Monetary Policy in Ghana," Draft Report for USAID/Ghana, November 2000.

¹ In practice, the BoG canvasses banks daily to determine their overall reserve position which gives the BoG a reasonably good idea of the level of reserves in the banking system on a continuous basis.

² This contrasts with the open market operations conducted in the U. S. by the Fed. To drain reserves from the banking system, the Fed sells U. S. Treasuries from its own account, thereby reducing its assets (the securities) and its liabilities (banking system reserves).

A problem arises if the auction is undersubscribed. Continuing the above example, if only C80 billion worth of bids are accepted, then all proceeds go to the government and the BoG gets nothing. Undersubscription means that the BoG's reserve money targets cannot be fully met through open market operations in government securities, so it must use other instruments to meet its reserve targets, e.g., foreign exchange sales or reverse repurchase agreements.

If the auction is undersubscribed to the point that the government cannot meet its PSBR, the problem worsens. (Continuing the example above, this would happen if the bids accepted totaled only C60 billion, leaving a shortfall of C20 billion in the PSBR as well as foregoing the C20 billion for monetary management purposes.) In this case, the BoG buys enough T-bills to enable the government to meet its PSBR. The BoG purchase of T-bills creates money because the BoG credits the government's account by the amount of the purchase and this money will be spent by the government on goods, services, or the redemption of maturing securities. *In this case, the BoG is not only unable to conduct its open market operations because of the undersubscription, but also directly violates its reserve money target by purchasing the T-bills.*

Undersubscribed auctions are the rule. From mid-1994 through 1996, the subscription rate (value of securities sold as a percentage of securities offered for sale) averaged 65%. In 1999 the average subscription rate was 74%. During 2000 through September the average subscription rate rose to 86%. In the summer of 2000, BoG officials stated that a substantial part of the recent PSBR has been to raise funds to rollover the existing debt and that proceeds from the auctions had yielded slightly more than this amount. Thus, it is likely that on average the BoG's open market operations have failed because the auctions are persistently undersubscribed. Furthermore, in 1999 the BoG added C256 billion in T-bills to its assets, as it purchased T-bills to help the government meet its PSBR. The potential inflationary effects of this monetary injection were offset by a decline in net foreign assets—most likely the sale of foreign exchange.

The primary reason that auctions are undersubscribed is that interest rates are not free to equilibrate the quantity supplied with the quantity demanded.³ BoG officials stated that a primary consideration in setting the interest rate is the cost to the government of servicing the debt. The interest rate is changed either when reserve money targets cannot be consistently met through the use of alternative monetary policy instruments or when other considerations dominate⁴. Banks are notified by the BoG when it is time to raise the prices bid for Treasuries, thereby lowering interest rates. The BoG uses dummy bids to signal that it is acceptable for dealers to offer lower prices (higher interest rates) for T-bills.

Thus, the BoG cannot exercise the desired degree of control over the monetary base by using what is supposed to be its primary monetary policy instrument. This situation is compounded by the absence of a secondary market for Treasuries. A robust secondary market will not develop as long as the government continues to intervene heavily in the determination of interest rates.

³ Some undersubscription occurs for seasonal reasons, for example when income taxes are due and around Christmas.

⁴ For example, beginning in the last quarter of 1999 interest rates were raised in increments from 26% to 45% by August 2000 in an attempt to rein in the depreciation of the cedi.